

**KIBABII UNIVERSITY**



**UNIVERSITY EXAMINATIONS  
SPECIAL/SUPPLEMENTARY EXAMINATION  
2022/2023 ACADEMIC YEAR  
THIRD YEAR SECOND SEMESTER  
FOR THE DEGREE OF BACHELOR OF COMMERCE**

**COURSE CODE: BBL 323**

**COURSE TITLE: SUSTAINABLE LOGISTICS**

**DATE:08/08/2023**

**TIME:2:00-4:00pm**

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**INSTRUCTIONS TO CANDIDATES**

**Answer Question ONE (compulsory) and ANY OTHER TWO questions**

## **Case Study: Dell Computer and Fujitsu America**

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Dell Computer Corporation's success in the past few years and its growth relative to the rest of the PC industry made daily headlines throughout the 1990s. Based on the premise that bypassing resellers, building products to order, and reducing inventories would result in a lower cost, more responsive business, Dell has grown into one of the largest forces in the industry. Nevertheless, it is squeezed into such a narrow business niche that, from some perspectives, its very survival seems tenuous. Dell competes with many capable and, in some cases, lower cost competitors, has virtually no proprietary technology, and must deal with exceedingly robust suppliers, including Intel and Microsoft.

The heart of Dell's success is its integrated supply chain, which has enabled rapid product design, fabrication, and assembly, as well as direct shipment to customers. Inventories have been dramatically reduced through extensive sharing of information, a prudent choice given the risk of technological obsolescence and reductions in the cost of materials that can exceed 50 percent a month. Even with reduced inventories, Dell's strategic use of information has made possible a dramatic reduction in the elapsed time from order to delivery, giving Dell a significant competitive advantage.

Component inventories are monitored weekly throughout the supply chain and, when there are deviations from plan, the sales force steers customers, by means of discounts, if necessary, toward configurations for which there are adequate supplies. Thus, abundant, timely information is used to work the front and back ends of the supply chain simultaneously.

Speed is a critical factor in the computer industry, especially in the area of inventory. In the late 1980s, Dell measured component inventories in weeks. In 1998, they were measured in days. They may soon be further reduced through real-time deliveries so that, as components are used, they are automatically and immediately replaced. The reduction in inventory not only lowers requirements for capital, it also enables rapid changeovers to new product configurations because no old parts must be used up. Faster time to market for new products translates into increased revenues and profits. The change in emphasis from inventory levels to inventory velocity throughout the supply chain has been made possible, in part, by the Internet.

In Dell's new virtual corporation, inventories are reduced by use of timely information; emphasis on physical assets is being replaced by emphasis on intellectual capabilities; and proprietary business knowledge is being increasingly shared in open, collaborative relationships. This extensive integration of the supply chain can be viewed as a shift from vertical corporate integration to a virtually integrated corporation (Magretta, 1998). Vertical integration was essential in the early years of computer manufacturing when the supplier base was not well established and assemblers had little choice but to design and build components and assemble the entire end product in house. Proprietary component technologies were a main source of competitive advantage, although in some cases they had little to do with creating value for the customer. As the industry matured, multitudes of component suppliers became eager to

invest and compete in terms of price and innovation. Leveraging investments by these suppliers has freed Dell to focus on delivering complete solutions to its customers. However, because these components are available to all PC assemblers, it has become harder to compete in terms of end-product differentiation. Thus, a high premium has been placed on speed and process efficiency, blurring the traditional boundaries between supplier, manufacturer, and customer. For instance, peripherals, such as monitors, keyboards, speakers, and mice, need not be gathered in one location prior to shipment to the customer. Manufactured by separate suppliers and labeled with the Dell logo, shippers gather them from all over North America, match them overnight (merge-in-transit), and deliver them as complete hardware sets to customers as if they had come from the same location.

Dell's virtual integration has the following characteristics:

- use of rapid, seamless communication to build direct relationships between customers, OEM, and suppliers
- a clear definition of what Dell does best (i.e., core competencies, including branding, marketing, and selling through direct channels), with partnerships for the rest (capital-intensive and labor-intensive component fabrication processes and services). This enables Dell to be highly selective in its capital investments and to focus on activities that create the most value for customers and shareholders

### **QUESTION ONE**

- 1a) Discuss benefits of integration by dell company (14 marks)
- b) Highlight challenges of supply chain collaborations (6 Marks)
- c) Discuss the worldwide trends and forces driving supply chains towards increased integration (10 mark)

### **QUESTION TWO**

- 1a) Supply chain integration is stated as the dynamic working together of companies, their customers and suppliers to create, determine, fulfil, and communicate customer value in the overall environment or it is the extent to which organizations have removed boundaries from their internal processes, and the degree to which information is passed between actors of the supply chain. A supply chain integration is designed to discuss (12 Marks)
- b) Discuss benefits of Supply Chain Collaboration (8 Marks)

### **QUESTION THREE**

- a) Collaboration can be defined as “A firm's culture of working together with other firms toward a common set of goals that bring mutual benefits to a partnering relationship (Min et al., 2005). Collaboration is “the process of working together among independent firms along a supply chain in delivering product to end customer” (Simatupang and Sridharan, 2008). Discuss six types of supply chain collaboration (12marks)
- b) Discuss drivers of supply chain collaboration (8 marks)

### **QUESTION FOUR**

- a) Discuss some of the major costs of supply chain integration (10 marks)
- b) Discuss Humanitarian and Sustainable Supply Chain Management with the help of a diagram (10 Marks)

### **QUESTION FIVE**

Discuss the four categories of lean principle (20 marks)